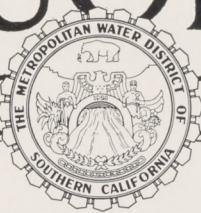


• COLORADO RIVER • AQUEDUCT NEWS

THE METROPOLITAN WATER DISTRICT



OF SOUTHERN CALIFORNIA

VOLUME XXIV

APRIL - MAY, 1957

NUMBERS 4 AND 5

Water Deliveries Increased 130 Million Gallons Per Day

The supply of Colorado River water being delivered to cities and areas in the Metropolitan Water District of Southern California has been increased by 130 million gallons per day or enough to meet the needs of nearly one million more people, it was announced by Robert B. Diemer, General Manager and Chief Engineer of the District.

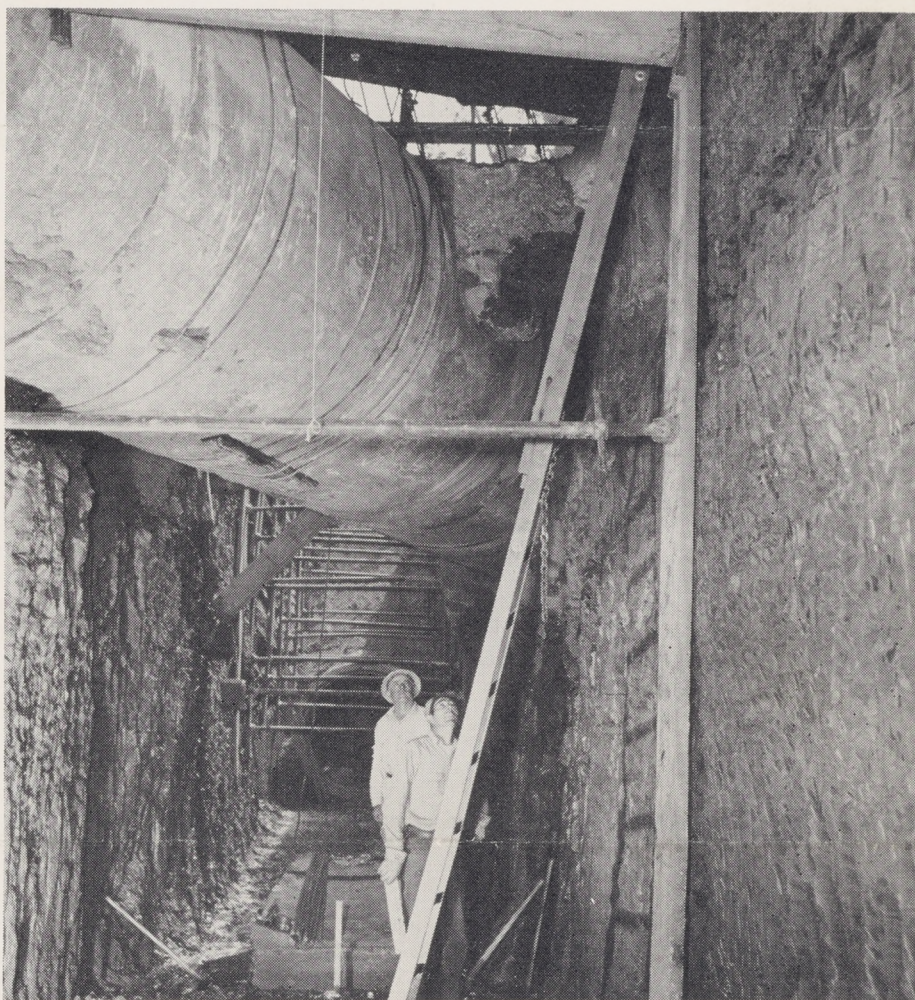
The increased water supply was brought about by placing in operation a fifth gigantic pump at each of the five pumping stations along the Colorado River Aqueduct. These pumps lift the water out of the Colorado River and over mountain barriers between the river and the coastal plain of Southern California, the District official said.

"Each of the five pumps now installed at the five pumping stations is capable of pumping water at the rate of 200 cubic feet per second," Mr. Diemer declared. "This means that we can now deliver 650 million gallons of water a day to Southern California.

"In addition to meeting the day-by-day water needs at homes and factories, this increased supply of Colorado River water is now being used to fill the District's reservoirs and to replenish underground water basins. More than one-third of the total amount of water we are now bringing in is being used to replenish underground water basins in Los Angeles and Orange counties," Mr. Diemer stated.

The increased aqueduct flow assures an adequate Colorado River water supply for Metropolitan Water District areas in Los Angeles, Orange, Riverside and San Bernardino counties, according to Mr. Diemer. He said that in San Diego County, rapidly increasing water use is taxing the capacity of two large lines now serving that area. However, construction of a third delivery line into San Diego County is scheduled soon to be underway.

(Continued on Page Three)



Work in progress on the Middle Feeder is shown above. The District's Middle Feeder will pass under the 81-inch storm drain of the Los Angeles County Flood Control District seen at the top of the picture. The Middle Feeder can be seen at the lower center behind the two workmen. This job is located on Graves Avenue near Cathryn Drive east of Monterey Park.

Second San Diego Aqueduct Plans Approved by Directors

Construction of the Second San Diego Aqueduct to a point 5.9 miles south of the County line was authorized by the District Board of Directors at its March 12 meeting. On April 16, the Board approved General Manager and Chief Engineer Robert B. Diemer's proposal

that some segments of the aqueduct be constructed in canal sections. Preliminary studies and surveys for the aqueduct have been carried forward since last September 18, when the Board granted authority to conduct these studies.

Incorporated in the preliminary plans is provision for increasing the capacity

(Continued on Page Four)

• COLORADO RIVER •
AQUEDUCT NEWS

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

306 West Third Street
 Los Angeles, California

Published monthly in the interest of Field and Office Workers on the Colorado River Aqueduct, and for the information of all other citizens of the Metropolitan Water District.

Vol. XXIV April-May, 1957 Nos 4 & 5

New Plan Approved For Underground Replenishment

The District Board of Directors at its meeting on April 16, 1957, approved a resolution which provided that the District would construct water delivery lines, and use sections of its present distribution system to deliver untreated water into the Central and West Basin areas for underground replenishment under certain terms and conditions.

These terms and conditions call upon the Central and West Basin areas to organize within the next four years a water replenishment district, or districts, and also call upon the Central and West Basin areas to execute a contract, or contracts, between the water replenishment district, or districts, and the Metropolitan Water District providing for the purchase of untreated Colorado River Aqueduct water in sufficient quantities to justify the District in building these water lines in the near future.

The District's resolution also provided that it stood ready to undertake necessary preliminary engineering work, surveys, studies and designs for the construction of the untreated water lines whenever in the judgment of the Board of Directors sufficient progress has been made by the Central and West Basin areas in the organization of a water replenishment district, or districts.

It is anticipated that the application of other member areas for the construction of pipe lines under similar conditions will be given consideration and hearings granted their representatives.

Under this plan, the Lower Feeder, including all existing and future facilities southerly of it and supplied by the Lower Feeder, could be used for transporting untreated water when required for the use of untreated water rather than treated.

General Manager and Chief Engineer Robert B. Diemer recommended that before any consideration be given to the plan to use the Lower Feeder for serv-



DIRECTOR A. H. ALLEN
 15 Years on District Board

Director A. H. Allen, who represents Santa Ana on the District Board of Directors, was presented with his 15-year service pin at the April 16 meeting of the Board.

Mr. Allen is a native Californian and attended Los Angeles Military Academy. He has been a citrus grower in Orange County for many years and is also a Director of the First Western Bank in Santa Ana as well as Manager of the Santora Company.

From 1947 to 1951 he served as Secretary of the District Board of Directors. He is presently Vice Chairman of the Finance and Insurance Committee, a member of the Executive Committee and also of the Land Committee.

ing untreated water, the governing boards of the Central and West Basin Districts should express their approval of the plan.

Under the General Manager's projected plans, three new lines costing approximately \$19 million would have to be built. These would include a new connecting line from the La Verne-to-Garvey Feeder to the West Orange County Feeder extension, an extension of the Lower Feeder southerly to east Long Beach, and a line from east Long Beach to the Palos Verdes Reservoir.

The first line mentioned will have the capacity to deliver 150 cubic feet per second of softened water to areas in Orange County when the Lower Feeder is used to deliver untreated water under the proposed plan.

The latter two lines would make 72,500 acre-feet of unsoftened water annually available in the vicinity of Palos Verdes Reservoir for recharging the coastal area of the West Basin District.

For the

(The following items are noted from the report of General Manager and Chief Engineer Robert B. Diemer, filed April, 1957 covering District operations for March, 1957).

Colorado River—The water surface elevation of Lake Mead dropped 2.15 feet during March to elevation 1092.17 and usable storage decreased 198,000 acre-feet to 11,502,000. This is 8.68 feet higher and 788,000 acre-feet more than at this time last year. The average rate of discharge from Hoover Dam for the month was 11,900 cubic feet per second as compared with 8,356 in February and 12,540 a year ago.

Pumping and Power — Pumping at Hayfield was continuous throughout the month on a 4-pump basis except for 58 minutes during which the operation was on a 3-pump basis. A total of 48,228 acre-feet of water was delivered during March by the Hayfield plant. The District's share of Parker energy for the month was 19,920,971 kwhrs, all of which was used in the District's system. Edison interchange energy delivered to the District was 22,291,000 kwhrs. Peak delivery to and from Edison was 77,000 kw and 120,000 kw, respectively.

Weymouth Softening and Filtration Plant—Colorado River water was softened from 395 to 126 ppm of hardness at an average rate of 197 cfs during March. The daily rate of flow varied from 155 to 304 cfs. The total volume of water treated was 11,864 acre-feet.

Construction—Progress on construction work on the distribution system during March was as follows: Schedules 79SC and 80SC (Lower Feeder) the contracts are 79 and 77 per cent complete, respectively; Schedule 61SC (West Orange County Feeder Extension) work was completed March 14; Schedules 56SC and 57SC (Middle Feeder) the contract is 34 per cent complete; Schedule 58SC (Middle Feeder) the contract is 43 per cent complete; Schedule 59A (Middle Feeder) the contract is 27 per cent complete.

Extension of Pumping Plant Buildings—The contract is 93 per cent complete, with work at Intake and Gene completed, the contract at Iron Mountain 99 per cent complete, Eagle Mountain 91 per cent, and Hayfield 82 per cent complete. The contract on installation of Pumping Unit 6 is 9 per cent complete.

Purchasing—Total expenditures covered by 439 purchase orders issued during March aggregate approximately \$158,071.

RECORD

(The following items are noted from the report of General Manager and Chief Engineer Robert B. Diemer, filed May, 1957 covering District operations for April, 1957).

Colorado River—The water surface elevation of Lake Mead dropped 2.67 feet to elevation 1089.50 and usable storage decreased to 11,258,000 acre-feet by April 19 but increased 1.5 feet to elevation 1091.00 and usable storage to 11,395,000 by April 30, a net drop of 1.17 feet and a decrease of 107,000 acre-feet during the month. The average rate of discharge from Hoover Dam for the month was 15,300 cubic feet per second as compared with 11,860 in March.

Pumping and Power—Pumping operations were continuously on a 4-pump basis at all plants until noon April 22, when they were shut down at Intake and Gene plants. Pumps at the other plants were shut down one at a time until noon April 23, when the last pump at Hayfield was shut down. The shutdown was to permit an inspection and cleaning of Freda Siphon. Pumping was resumed progressively from Intake to Hayfield on April 25 and April 26. The District's share of Parker energy for the month was 24,831,288 kwhrs. Edison interchange energy delivered to the District was 13,838,400 kwhrs. Peak delivery to and from Edison was 132,000 kw and 110,000 kw, respectively.

Weymouth Softening and Filtration Plant—Colorado River water was softened from 392 to 130 ppm of hardness at an average rate of 235 cfs. Daily rate of flow varied from 123 to 300 cfs. The total volume of water treated was 12,720 acre-feet.

Construction — Progress on construction work on the distribution system was as follows: Schedules 79SC and 80SC (Lower Feeder) the contracts are 87 and 84 per cent complete, respectively; Schedules 56SC and 57SC (Middle Feeder) contract is 46 per cent complete; Schedules 58SC and 59SC (Middle Feeder) contract is 35 per cent complete; Schedule 59A (Middle Feeder) contract is 36 per cent complete.

Extension of Pumping Plant Buildings—Work at Intake, Gene, Iron Mountain and Eagle Mountain plants has been completed. Work at Hayfield plant is 93 per cent complete. The contract on installation of Pumping Unit 6 is 16 per cent complete.

Purchasing—Total expenditures covered by 467 purchase orders and 3 agreements aggregate about \$102,591.



Earth moving and pipe handling equipment are shown at work on the Middle Feeder. At the left a back hoe is excavating trench preparatory to laying pipe while other equipment moves excavated earth and performs other tasks necessary to speed completion of the job.

Water Deliveries

(Continued From Page One)

Mr. Diemer pointed out that placing the fifth pumping units in operation is part of a \$200 million expansion program which will bring the huge Colorado River Aqueduct to its full delivery capacity of more than one billion gallons of water a day by the end of 1960. The additional water to be made available will take care of 4,000,000 more people than are now residing in Southern California, Mr. Diemer said.

"When the Colorado River Aqueduct was completed in its initial development in 1941 there were only three pumps installed at each of the five pumping plants. Today there are five and ultimately there will be nine, with one serving for standby use," Mr. Diemer emphasized.

Mr. Diemer said that most sections of the aqueduct were built to their full capacity initially. These included tunnels, canals and covered conduits. Other sections, including several miles of inverted siphons which carry the water over desert washes and other declivities were built to half capacity for more

efficient operation. Contracts for installing the second barrel of most of these siphons have been let and work will get underway on these this summer, according to Mr. Diemer.

He also pointed out work is going forward on expanding the District's huge distribution system which extends into the five southern counties of Los Angeles, Orange, Riverside, San Diego and San Bernardino.

"When the District was first organized it included 11 incorporated cities with an area of 624 square miles. Today, the District includes 76 cities and large unincorporated areas with a total area of more than 3,000 square miles," Mr. Diemer stated.

"While it is true that we live in a semi-arid region and will certainly have to look to the north for additional water in the future, the Metropolitan Water District's Colorado River Aqueduct, when brought to its full planned delivery capacity of more than one billion gallons of water a day, will be able to supply the domestic and industrial water needs of Southern California for a number of years to come," Mr. Diemer concluded.

Southern Legislators Praised by District Board

In a statement issued May 16, the Board of Directors of the Metropolitan Water District of Southern California praised Southern California legislators for their firm insistence that there be no further appropriation of funds for the Feather River Project until the Legislature has submitted to the people a Constitutional Amendment adequately protecting the water rights of the areas of origin and the areas of need.

The Board of Commissioners of the Los Angeles Department of Water and Power, the Los Angeles Chamber of Commerce and Mayor Norris Poulson joined with the District in the statement commending the Southern California delegation to the State Legislature.

In highly commending the Southern California legislators for their work in seeking to secure a satisfactory Constitutional Amendment, the Metropolitan Water District Board urged them to stand firm and hold the line in this legislative session.

Referring to a general program of State water development, the Water District statement pointed out that in a satisfactory Constitutional Amendment "there must be resolved a financial policy that will provide adequate funds not only to start but to assure completion of projects, large or small, as they may be needed and authorized by the Legislature from time to time." It further declared that "reimbursable costs for construction and operation of such projects should be repaid by those served by the projects."

The full statement of the Metropolitan Water District Board follows:

"Inasmuch as the State Legislature is within one month of adjournment, the State's water development program is coming to be the cause of ever greater concern.

"We believe this program cannot be furthered until the water rights question has been resolved in a manner fair to all sections of the State, both as to present and future water needs.

"We recognize, also, that there must be resolved a financial policy that will provide adequate funds, not only to start, but to assure completion of projects, large or small, as they may be needed and authorized by the Legislature from time to time. Further, that reimbursable costs for construction and operation of such projects be repaid by those served by the projects.

"These basic principles should be in-

Board States Position On State Water Financing

Acting on the recommendation of its Executive Committee and its Water Problems Committee, the Board of Directors on May 14 reaffirmed its endorsement of a set of principles concerning methods of financing the proposed Feather River Project and other units of the State's General Water Plan.

Board Chairman Joseph Jensen pointed out that in setting forth the statement of financial policies, the Board is not seeking to dictate provisions for a Constitutional Amendment concerning water rights, but is submitting the statement of principles to members of the Legislature for their consideration.

The Board's statement follows:

As a prospective contractor for surplus water made available from the Feather River, the Sacramento-San Joaquin Delta and other sources, The Metropolitan Water District of Southern California has an interest in policies which may be established with regard to the financing of the initial Feather River Project and similar California water development projects.

Accordingly, it respectfully is recommended that the financial policies for the Feather River Project and other State water development projects should

be incorporated in a Constitutional Amendment. It is urgent that such a Constitutional Amendment be adopted by the Legislature for submission to the voters of California at the General Election in 1958.

"A Constitutional Amendment that gives proper and fair guarantee to areas of origin and to areas of need is the step that must be taken now. Until this basic step has been taken many obstacles and delays will beset the Feather River Project. Therefore, the overall progress on constructing the Feather River Project will best be secured by making no further appropriations for this project until adoption by the Legislature of a Constitutional Amendment giving adequate protection alike to areas of origin and areas of need.

"We commend members of the Southern California delegation in the Legislature for their strong and constructive efforts to advance the Feather River Project by bringing about a satisfactory Constitutional Amendment. We pledge our full support to them in this program and urge them to continue in a united stand to withhold further appropriations until a legislative program as outlined herein has been achieved."

include the following basic provisions:

1. The financing of the Feather River Project and other State water development projects should be the responsibility of the State of California. In addition to funds made available by the State Legislature from other sources, general obligation bonds in an amount adequate to complete construction of an authorized project should be voted by the people as a means of assuring financing of the entire project. Bonds sufficient to assure completion of the entire project should be authorized by the people, even though not ultimately required or sold, because of the availability of funds from other sources.

2. State bond issues submitted by the State Legislature to the people for their authorization should be limited in their use to a specific water development project, such as the Feather River Project. Such bonds should not be commingled with funds from other sources that may be placed in a water projects construction and development fund.

3. A State water project bond issue should be submitted to the people for their approval only after the State Legislature has determined that sufficient funds will be derived from water and/or power contracting agencies to provide for the repayment, with interest of that

(Continued on Page Five)

San Diego Aqueduct

(Continued From Page One)

of the Colorado River Aqueduct westerly of the San Jacinto Tunnel. Instead of duplicating the present Casa Loma Siphon, an aqueduct with a capacity of 750 cubic feet per second will be constructed to follow a more southerly route in canal and siphon sections to Cottonwood Avenue and thence to the present terminus of the Casa Loma Siphon.

The San Diego Aqueduct diversion point will be at Cottonwood Avenue and the line will have a capacity of 500 cubic feet per second as far as Auld Valley. From there into San Diego County the line will have a 250 cubic feet per second capacity. Rights of way in San Diego County are to be provided by the San Diego County Water Authority.

The use of canal sections instead of pipe lines on both the Colorado River Aqueduct and the San Diego line will result in a savings to the District of approximately \$20 million, Mr. Diemer, in a report to the Board, pointed out. Engineering studies and surveys are now being carried forward and it is expected that actual construction work will be started by the end of the year.

NEWS FROM FIELD AND OFFICE



Hortense Helgesen—25 Years of Service

Hortense Helgesen became eligible for her 25-year service pin on May 1, 1957. She is a graduate of the University of Arizona, and first started to work for the District as a Stenographer in 1931, continuing in that capacity in various departments until 1939 when she resigned.

She was reemployed in 1940 to work in the Treasurer's office, and later in the Employment Office and the office of the General Manager and Chief Engineer. In 1942 she became Assistant Treasurer, and the next year was made Assistant Controller, returning to the position of Assistant Treasurer in 1947.

Hortense was selected by the Board of directors as Treasurer, effective April 1, 1956, to fill the vacancy created by the death of Ira R. Pontius. She has performed the duties of Treasurer in a very able manner since that time.



Frank H. Dennis, Maintenance Man at the Softening Plant, displays considerable fortitude as he stands beneath a swarm of bees that recently paid an unexpected visit to the plant. Inez Brooks was the intrepid photographer who snapped the picture. The bees proved to be full of sweetness and were removed without incident by an expert bee handler.

Water Financing

(Continued From Page Four)

reimbursable portion of the project to be financed by the bond issue, and further to provide for the repayment, with interest, of reimbursable features financed from money derived from the water projects construction and development fund.

4. The revenues from the Feather River Project and other State water development projects, after meeting operating and maintenance costs, should be applied to bond interest and bond redemption payments for the reimbursable costs of such projects. All revenues derived from any project should be used only to meet the requirements of the project from which the funds are derived.

5. A water projects construction and development fund should be established by authority of the State Legislature and should serve as a revolving fund for State monies received from sources deemed appropriate by the State Legislature. Money should be paid out of this fund only by specific appropriations of the State Legislature. Any money taken from the water projects construction and development fund, except for non-reimbursable costs, should be returned to this fund, with interest, by water and/or power contractors with those projects benefiting from money derived from the fund.

6. The State Legislature should determine the costs of a State water project

that are to be reimbursable and those that are to be non-reimbursable and those costs which are reimbursable should be repaid with interest.

7. For each State water project there should be established and maintained a separate Operating Fund, and water and/or power contractors for each State water project should be required to pay into the Operating Fund of that project the money required under their contracts.

8. Contracts between the State and water and/or power contractors should provide that a contracting agency may, at its discretion, meet its payments either from revenues derived from the sale of water and/or power or from ad valorem tax levies. State water projects financed from money derived from the water projects construction and development fund should be limited to works required to deliver water and/or power to contracting agencies or to provide benefits determined by the State Legislature to be of statewide benefit, such as flood control and certain recreational projects.

9. The Federal Government should be requested to provide from the Federal Treasury, funds for flood control, navigation, fish and wildlife and recreational projects of national interest.

10. Where areas express a desire for irrigation funds under reclamation law, the Federal Government may be requested to supply funds properly allocable for irrigation in connection with a State project, provided no handicaps are placed on State ownership and operation.

John Schlecht, Jr., Assistant Engineer, working on Pumping Plant Extension, and his wife, Evelyn, welcomed a baby daughter to the family on May 18. The young lady made her debut at Rose Hospital in Los Angeles, weighing 6 pounds, 13½ ounces and has been named Karen Lynn.

Lake Mead Runoff Forecast Still High

The outlook for this year's runoff into Lake Mead continues very good with the United States Bureau of Reclamation's latest forecast ranging from a maximum of 12,200,000 acre-feet to a minimum of 9,200,000 acre-feet during the period of April to July.

Precipitation during the month of April in the watersheds comprising the Colorado River basin ranged from 151 to 167 percent of normal. This, combined with precipitation during previous months, results in a total seasonal precipitation considerably above normal.

Between April 19 and May 31 the elevation of Lake Mead rose from 1089.5 to approximately 1110 feet. This results in a net rise of about 20 feet in elevation or approximately 2,000,000 acre-feet of water. Lake Mead, as of May 31, contained approximately 13,200,000 acre-feet of usable storage.

NEWS FROM FIELD AND OFFICE



James C. Yaklowich—20 Years of Service

James C. Yaklowich became eligible for his 20-year service pin on January 8, 1957. He first came to work for the District as a Laborer on Main Aqueduct road maintenance in August, 1933. He was laid off in March, 1934, on completion of work, and was re-employed in July, 1937, in connection with the construction of transmission lines.

Since then he has worked continuously on the construction and operation of main aqueduct pumping facilities in a variety of capacities. Since 1945 he has been a Maintenance Mechanic at Intake and Gene pumping plants. He is an all-round handyman, one that is always useful around the pumping plants.

* * *

Bill Goodman, Maintenance Helper at Lake Mathews, and his wife, Yvonne, greeted their third child on May 4, when they were presented with a 6 pound, 7 ounce baby boy at Riverside Community Hospital. The young man has been named John Wesley.

* * *

Paul R. Singer, Engineering Aide on Construction Design, on May 16 was married to Frances Brewer in the Little Brown Church in the Valley. Following the ceremony the couple honeymooned in Palm Springs. Fellow employees presented Paul and his bride with an electric frying pan.

* * *

The District's 1957 American Red Cross Campaign has resulted in collections and pledges amounting to \$1,795.97, constituting gifts from 275 employees for an average of more than

\$6.00 each from those contributing. This money has been turned over to the Los Angeles Chapter of the Red Cross. A number of District employees in the field have made their contributions directly to their local chapters of the Red Cross.

* * *

Robert Malone, Utility Man at Lake Mathews, and his wife, Pat, became parents for the second time when they were presented with a 6 pound, 14 ounce baby boy at the Kaiser Foundation Hospital. The new arrival has been named Robert Frank.

* * *

One hundred and twelve adults and children from Desert Center, Hayfield, the Kaiser mine and Eagle Mountain attended a P.T.A. meeting in the Eagle Mountain Recreation Hall on the evening of May 15. The business meeting was held following a potluck dinner. Robert Green, Lineman, has served as President of the Association for the past year. Mrs. Bill Pierce was re-elected as Secretary.

* * *

Charles L. Gilman, Utility Man in the La Verne Shop, was married to Miss Marilyn Darlene McNutt on April 15 in the Community Covenant Church in Monrovia. Charles is the son of Louis A. Gilman, Headhouse Operator at the Softening Plant.

* * *

Dan Gabele, System Operator at Gene Pump Lift, became a grandfather again on April 25 when a fine daughter was born to his son and daughter-in-law, David and Donna Gabele. The baby girl arrived at the U.C.L.A. clinic weighing 7 pounds, 15 ounces and was named Lorinda Lee. This is the third youngster for David and Donna. David is a Dental Student at U.S.C.

* * *

District employees at Lake Mathews joined in a family picnic at the home of William F. (Mac) and Mrs. McCleary on Sunday, May 5. Approximately 115 persons were present at the potluck chicken dinner and participated in games of horseshoes and baseball as well as hiking following dinner.

* * *

Patricia Wyatt, daughter of Grace Wyatt, Utility Clerk in the Purchasing Division, was married to Buddy Price on Easter Sunday in Las Vegas, Nevada. The blissful couple are making their home in Huntington Park and an outdoor reception is planned when the weather permits.



Gainor H. Hoover—20 Years of Service

Gainor H. Hoover became eligible for his 20-year service pin on April 18, 1957. He first came to work for the District on June 18, 1936, on main aqueduct construction. He worked in a number of capacities including Truck Driver, Concrete Formsetter and Carpenter until he resigned in March, 1937.

He was reemployed nine months later and worked as a Tractor Driver and Maintenance Mechanic on main aqueduct maintenance work until 1947, when he was made a Foreman. At present he makes his headquarters at Lake Mathews. As Foreman, under the Superintendent of Aqueduct Maintenance, he handles maintenance and construction work performed by crews working out of this major maintenance headquarters.



Patricia Wyatt